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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/672,459

09/26/2003

Chien-Yi Shih

3304.2.90

9729

21552

7590

10/05/2004

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EXAMINER

HYEON, HAE M

ART UNIT

PAPER NUMBER

2839

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

2m

<b>Office Action Summary</b>	<b>Application No.</b> 10/672,459	<b>Applicant(s)</b> SHIH, CHIEN-YI	
	<b>Examiner</b> Hae M Hyeon	<b>Art Unit</b> 2839	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 August 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Pretchel et al (4,725,243).

The admitted prior art discloses a plug-socket connector comprising a plug element 13 with a plurality of pins with a vacant site 131, a socket element 14 having a plurality of holes with a vacant site 141, and a connection port 12. The admitted prior art plug-socket connector is used with a bus device of a data-processing system comprising a control chip mounted on a main board. The only difference between the admitted prior art and the instant invention is that the vacant sites 131 and 141 of the prior art plug-socket connector are located at an end of the plug and socket. However, claim 1 recites that the plug element comprises at least three sites immediately adjacent to the vacant site being occupied by three of the plurality of pins, respectively. Also, the socket element includes the vacant site in a position corresponding to the vacant site of the plug element.

Pretchel et al discloses a socket connector 10 comprising an array of plurality of holes 20 for receiving pins. For proper alignment purpose, Pretchel teaches that one hole 18 is filled with molding material to form a polarizing (alignment) key 18. This hole 18 is immediately adjacent to at least three sites for receiving mating pins (terminals).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the plug-socket connector taught by the admitted prior art such that it would have a vacant site immediately adjacent to at least three occupied sites as taught by Pretchel et al to provide a proper alignment during the mating of a plug and socket.

### *Response to Arguments*

3. Applicant's arguments filed on August 25, 2004 have been fully considered but they are not persuasive. The applicant argues that claim 1 is amended to recite "the plug element cannot be combined with said socket element if the array of pins is shifted from the correct alignment with the array of holes up to one half of the array sites. Furthermore, the applicant argues that the admitted prior art and the reference by Pretchel et al do not disclose or suggests the arrangement of the vacant site of the array of pins or block site of the array of holes in the midst of the array.

First, if the array of pins is shifted from the correct alignment with the array of holes up to one half of the array site, a user connecting the plug to the socket does not have to rely on the alignment feature of the connector to see that the plug and the socket are not properly mated because the user will see the half of the pins exposed and visible outside of the plug.

Second, the applicant stated that the term "midst" is defined to be "**the interior** or central part or point" (Websters Ninth New Collegiate Dictionary). Although, the alignment feature of the Pretchel is not in the central part, it can be said that the alignment feature of the Pretchel is in the interior part. Furthermore, the paragraph [0016], lines 10-14 of the present specification states, "Certainly, the vacant site 201 **can also be any other one of the pins except end pins**

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such as Pin 1, Pin 5, Pin 6 and Pin 10. In other words Pin 2, Pin 4, Pin 7, Pin 8, or Pin 9 can also be removed to serve as the vacant site 201 to achieve the object of the present invention.” Since the vacant site 18’ of Pretchel is **not one of the end holes but a third hole**, the vacant site 18’ of Pretchel is in the midst (**interior**) of the array of holes that will achieve the same object of the present invention.

### *Conclusion*

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent No. 6,687,775 B1 by Bassett discloses a connector having a vacant site in the central part of the connector.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hae M Hyeon whose telephone number is 571-272-2093. The examiner can normally be reached on Mon.-Fri. (8:30-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tulsidas C Patel can be reached on (571) 272-2098. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hae M Hyeon  
Primary Examiner  
Art Unit 2839

hnh *hnh*

*Hae Moon Hyeon*